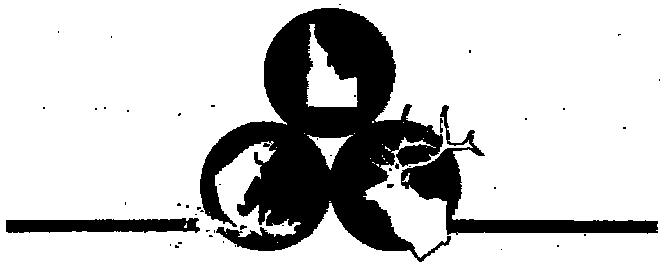

IDAHO DEPARTMENT OF FISH AND GAME
600 South Walnut • Box 25
Boise • Idaho • 83707

BRIEFING PAPER

THE STATUS OF 1984-1985 COLUMBIA BASIN STEELHEAD RUNS AND A RESPONSE TO COLUMBIA RIVER INTERTRIBAL FISH COMMISSION ALLEGATIONS AGAINST THE IDAHO DEPARTMENT OF FISH AND GAME

April 22, 1985

“ANADROMOUS FISH: Statistical Facts” is included in this document regarding the 1984-85 steelhead runs. It was prepared this past February in response to Columbia River Intertribal Fish Commission statements concerning the 1984-85 steelhead run. The information is still pertinent and the projections are close to expectations. A final accounting will be made later this spring when all hatchery runs have returned and final Idaho harvest figures are in.

The only new development is a recent charge by Columbia River Intertribal Fish Commission against the Idaho Department of Fish and Game of mismanagement and cover-up concerning a disease problem with hatchery smolts released into the Salmon River. These charges are refuted in the following information.

Jerry M. Conley
Director
Idaho Department of Fish and Game

The Columbia River Intertribal Fish Commission (CRITFC), has attributed the lack of steelhead in the 1984-85 Salmon River to an outbreak of IHN disease in smolts from the Niagara Springs Hatchery that were subsequently released from Pahsimeroi Hatchery on the Salmon River in 1983. Essentially zero return of those fish to the Salmon River is alleged.

The CRITFC claim that the Idaho Department of Fish and Game (IDFG) is attempting to "cover up" the disease outbreak at Niagara Springs Hatchery is hard to understand when, to establish this claim, it is quoting published reports prepared by IDFG and sent by IDFG to CRITFC and to more than 100 other fishery-related entities over the past five months.

The CRITFC is also in error when stating IDFG did not disinfect its facilities after the IHN episode. This was done. IDFG follows all standard, applicable disease control methods.

The IDFG thoroughly investigated the possibility that poor survival from the 1983 smolt release at Pahsimeroi Hatchery might be responsible for low 1984-85 returns into the Salmon River when the low return first became apparent in October of 1984.

For the following reasons, the conclusions from this investigation did not at that time and do not at this time change the IDFG position that the 1984 Columbia River gillnet fishery had a drastic adverse impact on the 1984-85 steelhead fishery in the Salmon River.

1. IHN is a disease that primarily impacts small fish fry and, in Idaho hatcheries, normally runs its course by October. This occurred at Niagara Springs Hatchery in 1982. Surviving Niagara Springs Hatchery smolts released from Pahsimeroi Hatchery in April of 1983 were not clinically diseased and were recorded as in good to excellent health.

2. Smolts from Niagara Springs Hatchery also suffered a serious outbreak of IHN in 1982, but these smolts, after release, produced the bulk of the record 1983-84 run into the Salmon River; fish that were obviously not doomed.

3. Only 29% of the total Salmon river A-run hatchery smolts in 1983 were exposed to high levels of IHN prior to release.

4. The CRITFC quotes from a brand-mark study that indicates only 1.3 percent of the 1983 release of smolts from Pahsimeroi Hatchery reached Lower Granite Dam on their downstream migration. From this study it concludes that the 1983 Pahsimeroi Hatchery release had essentially zero survival.

This is fallacious because:

a) The report clearly questions the accuracy of using freeze brand marks on juvenile steelhead from warmwater hatcheries such as Niagara Springs based on poor mark retention. Poor mark retention will cause a drastic underestimate of survival;

b) The studies are not designed to provide absolute numbers of smolts surviving but only comparative year-to-year migration rates;

c) An identical study in 1984 indicated even lower survival of Salmon River smolts to Lower Granite Dam than in 1983. There were no apparent disease problems or any other problems with those smolts. Again, poor mark retention is the suspected problem with the study results.

5. A-run steelhead, those bound for the Salmon River, are generally composed of primarily one-ocean fish (fish that spend one year in the ocean before returning), but the Pahsimeroi Hatchery run has averaged 5% two-ocean fish over the past six years (a 50/50 ratio is the IDFG goal). Using this ratio, an estimated 24,000 two-ocean hatchery fish from the 1982 smolt release were expected into the Salmon River during the 1984-85 run. Based on the best estimate to date, only 6,000 actually reached the Salmon River in 1984-85.

6. Even if the invalid assumption is made that the 1983 release suffered total mortality, there should still have been a significant run into the Salmon River of 1982-released two-ocean fish.

   The total hatchery A-run over Bonneville Dam in 1984 was composed of 60% two-ocean fish. Any claim cannot be supported that, for some reason or other, essentially none of the 1982 A-run smolt release from Pahsimeroi Hatchery returned as two-ocean fish while all the other 1982 A-run hatchery smolts from the upper Columbia River Basin returned as primarily two-ocean fish.

7. Each year the Salmon River steelhead run is composed of four separate components: wild, one-ocean fish; wild, two-ocean fish; hatchery-produced, one-ocean fish; and hatchery-produced, two-ocean fish. If failure of returning Pahsimeroi Hatchery one-ocean fish due to IHN is the cause of the poor 1984-85 Salmon River run, as maintained by CRITFC, then why did the other components of the 1984-85 run also return at a reduced rate when these other components were obviously not affected by IHN.

   Despite the record run at Bonneville Dam, the middle Columbia River steelhead run, like the Salmon River run, was also depressed. There were no disease problems with these A-run fish.

   The Columbia River net fishery is clearly implicated as the cause of both declines.

8. Finally, to date almost 3,000 of the 1983 smolts that CRITFC claims died of IHN have returned as adults to the Salmon River in 1984-85. More of these fish should return in 1985-86.

In summary, IDFG is not aware of any valid arguments that show the poor 1984-85 steelhead run into the Salmon River was not caused by the Columbia River Indian gillnet fishery. The IDFG feels that reasonable management measures in the Columbia River could have prevented this situation and provided adequate steelhead to both the Indian fishery and the Salmon River. Such measures were urged by IDFG, but unfortunately, those measures were not implemented.

The IDFG is more than willing to join in a cooperative effort to resolve the Columbia River steelhead fishery problems to the benefit of all parties involved. It is very difficult, however, to resolve problems in the fishery if one party refuses to acknowledge problems exist.

Challenge for the Future

We challenge CRITFC to accept the responsibility for rational management of the impacts of the treaty fishery; participate in efforts to develop known-stock, hatchery-supported fisheries for the tribal fishermen; and investigate fishing methods such as trap-nets or fish wheels which allow live release of wild fish when necessary.

It is a generally accepted fact that heavy fishing in mixed-stock fisheries leads to annihilation of all but the strongest stocks. Mixed-stock fisheries must be limited by the spawning escapement needs of the weaker or more sensitive stocks. This point has been made repeatedly by the tribes with relation to ocean fisheries. It applies equally to the Columbia River gillnet fishery and the impacts on upriver sport or tribal fisheries and spawning escapements.

In spite of the dire predictions and outlook of 10 years ago, the Idaho Department of Fish and Game has proven that steelhead populations can be managed and enhanced, even above eight dams and up to 900 miles from the ocean. The same results can be accomplished with salmon if cooperation and responsible fishery management can be achieved. Use of the rebuilt anadromous fish resource by one segment of the users, however, should not be at the expense of other segments of users.

ANADROMOUS FISH: Statistical Facts

VOLUME 7 NUMBER 4 OF THE COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION NEWS (JULY-OCTOBER, 1984) USES SOME PARTIAL OR INACCURATE STATISTICS TO ADDRESS THE IMPACTS OF THE 1984 TREATY INDIAN COMMERCIAL FISHERY ON IDAHO-BOUND STEELHEAD. THE CRITFC CLAIMS, AND THE IDFG COMMENTS FOLLOW:

"More steelhead made their way to Idaho this year than have ever been counted in any previous year." (CRITFC)

The 1984 steelhead count at Lower Granite Dam of an estimated 91,000 fish is the highest on record since Lower Granite was completed in 1975. That year, however, was the second-lowest count into the Snake River (16,000) in history. Steelhead runs have been steadily rebuilding since then. One hundred eight thousand steelhead crossed Ice Harbor Dam, the first to provide counts of steelhead into the Snake River, in fish-year 1962-63 before dam impacts became severe. The nine-year average (1975-1983), which CRITFC uses as a comparison with the 1984 run, includes six of the eight lowest Snake River steelhead counts in history.

"Of these Idaho-destined steelhead, a precedent-setting 19,200 were "wild" or, more accurately, natural spawners." (CRITFC)

There is nothing "precedent-setting" about only 19,200 wild Spawners passing Lower Granite Dam in 1984 except that it reverses a five-year rebuilding trend. For the 10-year period 1962-1971, before lower Snake River dams and before hatchery runs, the wild runs to Idaho averaged 69,000 steelhead. We have suffered no significant habitat losses since 1970. Since 1980 we have observed increasing numbers of wild and natural spawners in Idaho. Our 1982 estimate was 22,000-25,000 and the 1983 estimate was approximately 30,000 wild steelhead into the Clearwater and Salmon rivers and the Oregon/Washington tributaries of the Snake River.

The 1983 wild steelhead run estimate used by CRITFC to show improvement in 1984 is greatly underestimated. This estimate is based on limited sampling of steelhead taken by gillnets in September of 1983. Using similar data on the 1984 run would result in a reduction of at least 20,000 steelhead from the number estimated by the more complete sampling done at Bonneville Dam in 1984.

"The news is also good for steelhead in the mid-Columbia…" (CRITFC)

The data also does not support the claim for increased wild fish escapement at Priest Rapids in 1984. In fact, there was no sampling done at this dam to assess the number of wild steelhead. The total run (25,300) is actually 6,400 fish fewer than the 1983 count of 31,682. As with the Salmon River A-run steelhead, in spite of a near record count at Bonneville Dam, the upriver escapement above Priest Rapids Dam is substantially lower than 1983, a fact that is reflected by poorer fishing.

"A preliminary harvest estimate for non-Indian sport fisheries is also about 70,000." (CRITFC)

The estimate for 1984 non-Indian sport harvest of 70,000 fish is based on the 1983 calendar year harvest figures published by the states. Calendar year figures include sport catches for portions of two consecutive fish run years. The 1983 calendar year includes a spring fishery on steelhead which entered Idaho in the fall of 1982 and a fall fishery on steelhead which entered Idaho in the fall of 1983. Idaho produced a 32,000-fish catch in calendar year 1983 based on an excellent spring fishery on carryover from the 1982 run and an outstanding fall fishery in the Salmon River. The 1984 spring fishery was very poor. The Salmon River catch in the 1984 fall fishery is predicted to be only 4,500 fish compared to 15,000 in 1983. Idaho sport catch for calendar year 1984 will be closed to 19,000 steelhead than 32,000, even with the above-average return to the Clearwater hatchery programs.

Estimates of catch on a calendar year basis can mask what is actually happening to an individual fish run. True comparison can be made only on a fish-year basis. A valid comparison for the fall, 1983 and 1984, fishery is as follows:

	Total Run	Percent change	Indian Harvest[1]	Percent change	Idaho harvest	Percent Change
1983	217,634		15,000		22,100	
1984	315,146	plus 45	71,000[2]	plus 373	12,000[3]	minus 44

[1] Includes only fish that were sold through commercial outlets. Does not include "take home" subsistence fish, unrecorded sales, or mortalities from gillnet dropout.

[2] This is the largest recorded number of steelhead taken by the tribes in the years 1938-1984.

[3] Preliminary estimate.

In summary, the total steelhead run increased and there were record runs over Bonneville Dam. The tribal harvest increased to a record level but the Idaho harvest decreased drastically. Based on available data to date it appears that, while the B run into the Clearwater may be of record size, the A run fish into the Salmon River were severely impacted by the downriver fishery. Approximately two-thirds of the Idaho fishery is normally supplied by the Salmon River, and this situation represents a significant net loss to the Idaho fishery.

February 25, 1985